بسم الله الرحمن الرحيم

عنوان المحاضرة: Abortion (Miscarriage)

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ـ لا يخلو امتحان من سؤال في الـBleeding

-Bleeding is the main cause of maternal death in Egypt

Bleeding related to pregnancy:

-Bleeding in early pregnancy -Antepartum hge -Postpartum hge

Definition:

-Explosion or removal of an embryo or fetus from the uterus before it is capable of independent survival -(Before the 24th week of pregnancy).

Why pregnancy doesn't occur inspite of ovulation induction and good male factor?

a- Pregnancy incidence in every month is 20 - 25%

(Cumulative rate of conception تصاعدي كل شهر عن السابق and it's a peculiar phenomenon in human beings)

b- 50 - 70% of conceptions abort spontaneously, Most of them unrecognized (before or at the time of expected menses).

Common pitfalls: أخطاء شائعة

1-Viability confirmation: don't terminate pregnancy till be confirmed 100% it's unviable (2nd Opinion)

2-Anti-D: always check ABO system of both wife & husband

3-DD with ectopic: (**If you aren't ectopically minded → you can't diagnose ectopic)

4-Anti shock measures: hypovolemic shock due to bleeding 5-DIC: seldom occur

Abortion X Miscarriage:

Abortion: considered by women to be a procured termination of pregnancy, legal or criminal.

Induced: a) Legal (therapeutic usually in unplanned) b) illegal →Sepsis

Miscarriage: softer term, is better used for the spontaneous event.

Spontaneous: a) Threatened (Delayed) حمل مهدد b) Inevitable (Incomplete) سقط حتمي

c) Complete d) Missed

Spontaneous:

Definition: Loss of clinically recognized pregnancy prior to 24 wks gestation.

Incidence: -15-20% of clinically diagnosed pregnancies.

-non-development of the blastocyst within 14 days occurs in up to 50% of conceptions.

Risk factors: Age: advanced Parity: multiparty Cigarettes Doubling: prior similar event

Diagnosis:

1-History (symptoms): -Asymptomatic -Bleeding -Cramps -Discharge

2-Examination -General -Local (Pelvic examination - Speculum examination)

3-Investigations: -βHCG titre -FBC -Blood grouping -Screen -Transvaginal US

Etiology:

1-According to ONSET

A-First trimester abortion

1-Chromosol abnormalities e.g. Turner syndrome 2-Endocrianl disorders e.g. DM 3-Idiopathic.

B-second trimester abortion: 1-Uterine e.g. Mullerian abnormalities fibroid. 2-CX e.g. incompetence.

2-According to the CAUSE:

A-Maternal:

General: • Age. • Obesity • Acute febrile illness. • Septicaemia with infection of the fetus.

• Medical disorders e.g. Severe hypertension or renal disease.diabetes,hypothyroidism.

• Trauma. • A surgical operation. • Emotional shock, perhaps more in folklore than actuality.

Local:

- Congenital: uterine malformations - Traumatic: Incompetence of the internal os .
- Inflammatory - Neoplastic: fibroids - Immunological: APS
- Hormonal: progesterone deficiency - Miscellaneous: systemic lupus erythematosus

B-Placental: Anomalies & defective placentation **C-Cord**: Anomalies & knot

D-Membrane: Acute polyhydramnois

E-Fetal: • Genetic abnormalities. • Congenital malformations. • Faulty implantation.

Threatened abortion:

-Bleeding before 24 wks + Closed os + Viable fetus

Expectant management: 1-Rest, simple analgesics 2-Hormonal ttt (Progestogens)
3-Anti-D (half dose before 20 wks and repeat every 6 w if there is bleeding)

Incomplete (inevitable):

-Partial or imminent expulsion of the products of conception through a dilated cervix before 24 wks.
-Uterine evacuation is better -Anti-shock measures.

Complete -Complete expulsion of the products -No need for evacuation

Missed miscarriage:

-Dead fetus + before 24 wks + retained conception + closed cx.

Methods of Termination:

A) Expectant:

Advantages:

- Reduced risk of GA • Reduced risk of complications of surgery / side-effects of drugs
- Reduces need for anti-D if Rh negative • Woman remains 'in control'
- Lower risk of infection compared to surgical management
- May be more cost-effective compared to surgical management

Disadvantages:

- Pregnancy may take several weeks to resolve
- Heavy bleeding may occur requiring emergency evacuation
- Only available in units where 24h telephone contact and emergency admission are possible
- Success rate variable 25-100% • Tissue may not be available for histology • Associated with more pain

B) Medical:

Drugs: 1-RU486 (Mifepristone). 2-PGs. 3-Intra-aminotic infusion

Advantages:

- Reduced risk of GA and • Reduced risk of complications of surgery.
- Woman retains a degree of control • High levels of patient acceptability
- Lower risk of infection compared to surgical management
- More cost-effective compared to surgical management
- May be undertaken on an out-patient basis

Disadvantages:

- Bleeding may persist for up to 3 weeks • Variable success rates – 13-96%
- Associated with more pain and bleeding compared to surgical management
- Heavy bleeding may necessitate emergency evacuation • Tissue may not be available for histology
- Only be undertaken in units where 24h telephone contact and emergency admission are possible

C) Surgical: (1-Menstrual extraction. 2-D&C.)

Advantages:

- Offers prompt resolution of pregnancy with high success rate over 95%
- Tissue available for histology • High levels of patient acceptability • Less pain & bleeding

Disadvantages:

- Associated with anaesthetic and surgical risks
- Higher risk of infection
- More expensive than medical management
- Provide written information
- Outcome likely to be good irrespective of choice of management

Complications:

Depends on experience & duration of pregnancy (less than 6 wks or more than 16 wks)

Immediate: hemorrhage, injury, anesthesia

Late: Infection, RPOC, ongoing pregnancy, Rh sensitization.

Recurrent miscarriage: (NOT Recurrent Abortion)

Definition: Three or more consecutive spontaneous miscarriages Incidence: 0.3-3.5%

Etiology: 1-Idiopathic (50%) 2-Anatomical (10 - 15%)

3-Endocrinal (10 - 15%): A-Luteal phase defect B-PCOS 50% C-Metabolic disorders e.g. DM

4-Genetic (5 - 10%): A-Parental chromosomal abnormalities B-fetal chromosomal abnormalities

5-Immunological (5-10%): A-APS (50% of total) B-Allo-immunity.

6-Infection (5%) 7-Others (5%): Toxins & drugs

Investigations: (Oral Question)

**TORCH isn't used any more, and if done IgM nor IgG

1- Peripheral blood karyotype from the woman and her partner

2- Karyotype of products of conception

3- Transvaginal Sonography: uterine anomalies

4- Screen for acquired thrombophilias

5- Screen for inherited thrombophilias especially factor V Leiden mutation

Cervical Incompetence:

Definition: Inability to support a pregnancy to term due to functional or structural defect in the cervix.

Clinical presentation: Repeated miscarriage with onset that is decreasing (e.g. 6th then 5th then 4th .....)

Diagnosis: - PV examination - TVS

Etiology: a) Congenital: Congenital cervical hyperplasia, In utero DES exposure

b) Acquired: Cervical trauma, Forced dilatation(e.g. in elective termination)

TTT: a) Surgical: (Cervical Cerclage) غرزة في عنق الرحم (**Types: -TV: McDonald, Shirodkar -Transabd.)

**Cerclage is done after 13 wks→to exclude congenital anomalies(embryos with chromosomal anomalies usually miscarried before 13 wks)

b) Medical: Progesterone supplementation + follow up with serial TVS